

Stages: A framework for alternative assessment

By Madalaine Pugliese

How the Stages philosophy began

"My child can press the switch reliably. Now what?" "Our learner can use an alternative computer keyboard to access a computer. What software would help her keep up in school?"

As the software specialist at the Abilities Expo for 10 years and as an assistive technology specialist for 18 years, I often heard questions like these from people who are new to the assistive technology field. The responses to these consistent questions were compiled, validated, and refined based on feedback and guidance from parents, educators, and therapists around the country.

What resulted is a way to understand and identify a delayed individual's current stage or functioning level. *Stages* helps parents and professionals select appropriate software for children with special needs and provides a framework for alternative assessment through an organized developmental sequence.

Why is Stages important?

Gathering data on the performance of learners with cognitive and language delays can be a daunting challenge. Standardized tests are typically inappropriate tools. The phrase "alternative assessment" appears in the assessment provisions of the reauthorized IDEA, requiring that all states have alternative assessments in place by July 1, 2000.

This body of work evolved over several years to become the framework for a set of solutions designed

to address today's pressing need for alternative curriculum and assessment strategies when planning for individuals with language and cognitive delays. Alternative curriculum strategies are described in the *Stages* book. The information organized for each stage includes software suggestions from 40 publishers to help learners target the skills specified at each developmental stage. Each stage is accompanied by observable characteristics of the learner and competency goals that facilitate that body of knowledge. Sample Individualized Educational Plan (IEP) objectives are suggested for each stage and a description of relevant issues at each stage is included. A glossary, listing of Web resources, resource directory, and software directory are offered as appendices.

Alternative assessment strategy

Stages is designed to serve as an informal, technology-based measurement tool for learners with developmental language and cognitive challenges, and as an alternative to standardized assessments. The purpose is to facilitate software selection, design an alternative curriculum, but not to assign age equivalents. *Stages* solutions include Benchmark Activities — accessible diagnostic software activities that can serve as an informal alternative assessment measure. The idea is to use fun and accessible activities to measure ability levels and skill development. The accompanying observation forms, along with a portfolio of performance records printed from within each activity,

provide the foundation for generating an informal competency-based assessment report.

Stage One: Cause and Effect

In Stage One, the learner begins to use an appropriate input device to control the computer. She realizes that pressing a switch or pressing on a touch



screen can make something happen on the computer screen. This major achievement is the first step in the learning process. The purpose of the software at this stage is not to present information, but to motivate the learner to discover how to control the computer. Therefore, appropriate software generally offers very light content or meaning.

Finding software with built-in adaptive access features is important. Most programs offer a range of options to consider, such as size of print, type of prompts or cues, custom overlays for alternative keyboards, or setups for scanning. An example of Stage One software is *Switch Kids* from Simtech Publications.

Stage Two: Language Readiness

In Stage Two, the learner is exposed to language.



This article originally appeared in the February / March, 2000 issue of *Closing The Gap*.

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He learns that objects have names and that actions have words to express them. The learner is not asked to identify objects, but simply to be a sponge and absorb information. This stage develops receptive language and pre-linguistic skills.

Finding software at this stage can be challenging because we are moving from a content-light to a content-rich environment. Keep in mind that you still need to consider the appropriate access device and procedures. Look for software that offers brief, repetitive, and consistent learner prompts. An example of Stage Two software is *Teach Me to Talk* from SoftTouch.

Stage Three: Emerging Language

In Stage Three, the learner demonstrates an understanding of language through object identification and categorization. For example, she can show that she knows what a dog is (identification) and that an apple is a type of food (categorization). This is the first stage in which the learner is asked to make a selection or respond to a question based on a prompt. An example of Stage Three software is the classic *First Words* from Laureate Learning Systems.

Now that the learner has accomplished preliminary and reliable mastery of access to the learning environment, content becomes our primary focus. We look at deliberate ways to determine how much vocabulary the learner has absorbed from all of the hard work during the first two stages.

Stage Four: Early Concepts

Stage Four is a major turning point in the learner's development as we begin to see traditional academic and social readiness. Stage Four software focuses on traditional readiness skills, including academic work on colors, numbers, shapes, letters, patterns, and sounds.

Skills specific for reading readiness include letter recognition, sounds of letters, sequencing, rhyming, retelling stories, and

matching pictures to their initial letter sound. Note that if a program asks a learner to find or recognize a word other than his name, it is not appropriate for use at this Stage. An example of appropriate Stage Four software is *Bailey's Book House* from Edmark.

Readiness skills for math include number recognition, counting, one-to-one correspondence, patterns, and the development of specific math vocabulary concepts such as large and small. If a program asks a learner to operate on numbers, it is not appropriate for use at this stage; that is a skill targeted in Stage Five.

Stage Five: Advanced Concepts and Communication

The majority of the learner's academic growth occurs at Stage Five. Learners expand their skills from performing simple mathematical operations to solving more complex problems. They grow from basic spelling skills to full and fluent literacy. This type of academic journey takes time. Other than written language, a skill separated out for Stage Seven, the development of full academic functioning begins now and continues through the rest of a person's life.

Care should be taken to preview off-the-shelf educational software. Is there a reliable way for the learner to access the program? Does the program offer a clear and supportive learning environment? Watch for clear and organized visual presentation, appropriate use of animation and sound and self-paced timing of interaction. An example of Stage Five software is *MathPad* by IntelliTools, Inc.

Stage Six: Functional Learning

Stage Six applies academic concepts to the real world. In this stage, the learner is interested in the world around him, and he begins to make the connections that will allow him to become more independent. The focus changes from academics to applied knowledge and functional learning skills commonly referred to as activities of daily living (ADL).

Many of the topics addressed in Stage Six, such as money skills, have been introduced before. Now, however, the material must be practical and connect with an authentic experience. A learner might rehearse money skills within the electronic learning environment, then use those same skills when shopping for supplies at the school store.

The graphics shown on the screen should present realistic-looking objects, such as a photograph, not a crude drawing, of a clock. This helps the learner make the connection between the representation and the real world object. An example of Stage Six software is *TimeScales* by Attainment Company.

Stage Seven: Written Expression

In Stage Seven, the learner works toward mastery of writing skills, moving from early letter and sound association to full independent composition. If the learner plans to continue her education or seek most employment opportunities, some level of competency in written language is essential.

It is widely accepted that the more senses the learner uses, the better she will understand and remember the skills addressed. Giving learners the opportunity to apply both eyes and ears to the writing process employs this multi-sensory advantage. Children with learning challenges can greatly benefit from using a word processing program that offers text-to-speech technology. What we generally call talking writing software offers a range of options. An example of Stage Seven software is *Write:Outloud* by Don Johnston, Inc.

Using auditory feedback can enhance learners' abilities to correct their own writing errors. This builds both independence and self-esteem. Some learners will be inspired to write independently to express their feelings and ideas, sharing them as they choose, whereas others will use their writing skills to organize more practical information, such as a shopping list.



Streamlining software acquisition

By its very nature, *Stages* is a project that strives to make finding appropriate educational materials easy. To support the framework of the *Stages* book and Benchmark Activities, mentioned earlier, *Stages* Software Bundles offer computer programs that are appropriate for each stage. The recommended software includes some of the most popular titles in the fields of education, special education, and language development. In addition, software developed by therapists and educators in the field bring functional and realistic solutions to complete the effort.

To help professionals and parents identify and obtain the best software for their learners, Assistive Technology, Inc. offers a complete *Stages* solution: *Stages* book and software, free Sampler CD, additional software recommendations, multiple purchasing options, one-stop convenience, and training.

Comprehensive alternative learning and assessment strategy

Together, the *Stages* book, Benchmark Activities, and Software Bundles offer professionals and parents a clear path in designing learning solutions for individuals with cognitive and language delay.

Note: Madalaine Pugliese is the author of *Stages*; Director of the Assistive Technology Project, Massachusetts; and Director for the Assistive Technology Certificate Ed. S. Program, Simmons College.